Title (en)

Thermal-type air flow measuring instrument

Title (de)

Thermische Vorrichtung zum Messen der Luftströmung

Title (fr)

Instrument du type thermique pour la mesure de l'écoulement d'air

Publication

EP 0708315 B1 20020130 (EN)

Application

EP 95116354 A 19951017

Priority

JP 25180194 A 19941018

Abstract (en)

[origin: EP0708315A2] There is disclosed a thermal-type air flow measuring instrument which judges whether the direction of flow of a fluid, ranging from a static flow to a pulsating flow involving a reverse flow, is forward or reverse, and outputs a signal corresponding to the flow rate of the fluid, thereby measuring the flow rate with high precision. An auxiliary passage is provided in a fluid passage, and is constituted by first, second and third passageways. Two temperature sensing resistors are mounted respectively at an upstream side and a downstream side within the first passageway in close proximity to each other. Most of the fluid, flowed into the first passageway in a forward direction, flows through the second passageway. The third passageway serves to direct a reverse flow of the fluid toward the temperature sensing resistors. Results of measurement of the flow rate of intake air in an internal combustion engine indicate that a minus error due to a pulsating flow, experienced in the conventional construction, is eliminated almost completely, and that a plus error due to a reverse flow is reduced to about 1/10. <IMAGE>

IPC 1-7

G01F 1/68

IPC 8 full level

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CPC (source: EP KR US)

G01F 1/684 (2013.01 - EP US); **G01F 1/6842** (2013.01 - EP US); **G01F 5/00** (2013.01 - EP US); **G01F 23/22** (2013.01 - KR)

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